



Central Pierce Fire & Rescue

Pierce County Fire District No. 6

17520 – 22nd Avenue East Tacoma, WA 98445
 (253) 538-6402 (253) 538-6486 Fax
 www.centralpiercefirerescue.org

Revised 1-9-2013

The City of Puyallup requires a listing of chemicals and quantities from businesses. This information is necessary to compute fees for an annual Hazardous Materials Permit as required by the International Fire Code. Businesses will need to report quantities for the following chemical hazard classifications that are in storage or use:

- All compressed gases i.e. oxygen > 504 cu ft, flammable gases > 200 cu ft and inert gases > 6,000 cubic feet.
- All cryogenic fluids.
- Report quantities of corrosive gases > 200 cu ft, corrosive liquids > 54 gallons and corrosive solids > 999 pounds.
- All explosives
- Class I flammable liquids greater than 5 gallons indoors/ 10 gallons outdoors.
- Class II or IIIA combustibles greater than 25 gallons indoors/60 gallons outdoors.
- All highly toxic materials in gas, liquid and solid form.
- All *toxic* gases, all *toxic* liquids greater than 10 gallons, all *toxic* solids greater than 99 pounds.
- All chemicals with a health hazards rating of a 3 or 4 as per the NFPA 704 placard system. See the MSDS.
- All oxidizing materials in gas, liquid and solid form.
- All organic peroxides.
- All pyrophoric materials.
- All unstable reactive materials.
- All water reactive materials.
- All Level 2 and 3 aerosols in excess of **500 pounds**, net weight.

Please note that I need the maximum quantity that would be onsite at any one time, ***not totals for the year***. **Provide a total each category of solids, liquids and cubic feet.** Refer to page four for an explanation for each column on the inventory form. Use the chemical MSDS for reference. Provide a copy to Fire Prevention via fax: 253-538-6486 or

Or the mailing address is:

Central Pierce Fire & Rescue, Station 71
 Att-Clifford Iotte, DFM
 902 7th St NW
 Puyallup, Wa. 98371

Questions, do not hesitate to call my office at 253-538-6438 or 253.538.6402.

CRITERIA FOR FILLING OUT EACH COLUMN OF THE INVENTORY FORM

COLUMN 1.

Provide **DOT** hazard class ratings for each material. Class 1 thru 9.

Class 1 – Explosives

Class 2 - Compressed gases

Class 3 – Flammable liquids

Class 4 – Flammable solids

Class 5 – Oxidizers

Class 6 – Poisons (Only hazard class 3 and 4 are regulated)

Class 7 – Radioactive

Class 8 – Corrosives

Class 9 – Misc or ORM rated materials do not require reporting unless they have of physical characteristics of a Class 1 thru 8.

COLUMN 2. Provide the **Common or Trade Name** of the regulated materials.

COLUMN 3. Provide the **Chemical Name** and major components and concentrations, if a mixture.

COLUMN 4. Enter the chemical abstract service number (**CAS Number**) found in 29 C.F.R or MSDS. For mixtures, enter the CAS number of the mixture as a whole if it has been assigned a number distinct from the combined components. For a mixture that has no CAS number, leave this item blank or report the CAS numbers of as many components component chemicals as possible.

COLUMN 5. Enter the following descriptive codes as they apply to the physical state of each material. You may list more than one code, if applicable. **P=Pure; M=Mixture; S=Solid; L=Liquid; G=Gas**

COLUMN 6. Provide the aggregate maximum quantity of each material handled at any one time by the business. For underground tanks, list the maximum volume (in gallons/liters) of the tank.

COLUMN 7. Enter the units in Column 6 as: **LB=Pounds; GA=Gallons; CF=Cubic Feet.**

COLUMN 8. Enter the number of days that the material was present on site (during the year).

COLUMN 9. Enter the storage codes below for type, temperature and pressure.

TYPE

A = Aboveground Tank

B = Belowground Tank

C = Tank Inside Building

D = Steel Drum

E = Plastic or Nonmetallic Drum

F = Can

G = Carboy

H = Silo

I = Fiber Drum

J = Bag

K = Box

L = Cylinder

M = Glass Bottle/Jug

N = {Plastic Bottle/Jug

O = Tote Bin

P = Tank Wagon

Q = Rail Car

R = Other

TEMPERATURE

4 = Ambient

5 = Greater than Ambient

6 = Less than Ambient, but not cryogenic (<-150°F)

7 = Cryogenic conditions (>-150°F)




PRESSURE




1 = Ambient (Atmospheric)

2 = Less than Ambient (Atmospheric)

3 = Greater Ambient (Atmospheric)

SOURCES USED TO ASSIST IN CLASSIFYING HAZARDOUS MATERIALS

 Material Safety Data Sheets (MSDS)
 CC INFO Disc and other computer data bases
 SAX, Dangerous Properties of Industrial Material

 NFPA 49
 International Fire Code (IFC)
 Consultant

DEFINITIONS

COMBUSTIBLE LIQUID is a liquid having a flash point at or above 100°F (37.8°C). Combustible liquids are subdivided as follows. The category of combustible liquids does not include compressed gases or cryogenic fluids.

CLASS II LIQUIDS - are those having a closed cup flash points at or above 100°F (37.8°C) and below 140°F (60°C).

CLASS III-A LIQUIDS - are those having a closed cup flash points at or above 140°F (60°C) and below 200°F (93.3°C).

CLASS III-B LIQUIDS - are those liquids having closed cup flash points at or above 200°F (93.3°C).

FLAMMABLE LIQUID is a liquid having a closed cup flash point below 100°F (37.8°C). The category of flammable liquids does not include compressed gases or cryogenic fluids. Flammable liquids are further categorized into a group known as Class I Liquids. The class I category is subdivided as follows:

Class I-A - liquids include those having a flash point below 73°F (22.8°C) and having a boiling point below 100°F (37.8°C).

Class I-B - liquids including those having a flash point below 73°F (22.8°C) & having a boiling point at or above 100°F (37.8°C).

Class I-C - liquids include those having a flash point at or above 73°F (22.8°C) and below 100°F (37.8°C).

CORROSIVE is a chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact.

FLAMMABLE SOLIDS is a solid substance, other than one which is defined as a blasting agent or explosive, that is liable to cause fire through friction or as a result of retained heat from manufacture, which has an ignition temperature below 212°F (100°C), or which burns so vigorously or persistently when ignited that it creates a serious hazard. Flammable solids include finely divided solid materials which when dispersed in air as a cloud could be ignited and cause an explosion.

OXIDIZER is a chemical other than a blasting agent or explosive that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases. Oxidizers can either be liquid, solid or gases. Oxidizers can further be classified as the following:

Class 4 - An oxidizer that can undergo an explosive reaction due to contamination or exposure to thermal or physical shock. In addition, the oxidizer will enhance the burning rate and may cause spontaneous ignition of combustibles.

Class 3 - An oxidizer that will cause a severe increase in the burning rate of combustible materials with which it comes into contact or that will undergo vigorous self-sustained decomposition due to contamination or exposure to heat.

Class 2 - An oxidizer that will cause a moderate increase in the burning rate or that may cause spontaneous ignition of combustible materials with which it comes in contact.

Class 1 - An oxidizer whose primary hazard is that it slightly increases the burning rate but does not cause spontaneous ignition when it comes in contact with combustible materials.

ORGANIC PEROXIDE is an organic compound that can present an explosion hazard (detonation or deflagration) or they can be shock sensitive. They can decompose into various unstable compounds over an extended period of time. Organic Peroxides and either are liquids, pastes or solids (usually finely divided powders).

Organic Peroxides can further be classified as the following:

Unclassified - Peroxides which are capable of detonation. These peroxides present an extremely high explosion hazard through rapid explosive materials.

Class I Peroxides capable of deflagration but not detonations. They present a high explosion hazard through rapid decomposition.

Class II - Peroxides that burn very rapidly and present a severe reactivity hazardous

Class III - Peroxides that burn rapidly and presents a moderate reactivity hazard.

Class IV - Peroxides that burn in the same manner as ordinary combustible and present a minimum reactivity hazard.

Class V - Peroxides that do not burn or present a decomposition hazard.

PYROPHORIC is a chemical that will spontaneously ignite in air at or below a temperature of 130°F (54.5°C). Pyrophoric materials can either be gases, liquids or solids.

UNSTABLE (REACTIVE) MATERIALS:

Class 4 - Materials which in themselves are readily capable of detonation or of explosive decomposition or explosive reaction at normal temperatures and pressures. This class could include materials which are sensitive to mechanical or localized thermal shock at normal temperatures and pressures.

Class 3 - Materials which in themselves are capable of detonation or of explosive decomposition or explosive reaction but which require a strong initiating source or which must be heated under confinement before initiation. This degree should include materials which are sensitive to thermal or mechanical shock at elevated temperatures or pressures.

Class 2 - Materials which in themselves are normally unstable and readily undergo violent chemical change but do not detonate. This degree should include materials which can undergo chemical change with rapid release of energy at normal temperatures and pressures and which can undergo violent chemical change at elevated temperatures and pressures.

Class 1 - Materials which in themselves are normally stable but which can become unstable at elevated temperatures and pressures.

WATER-REACTIVE MATERIALS is material which explodes; violently reacts; produces flammable, toxic or other hazardous gases; or involves enough heat to cause self-ignition or ignition of nearby combustibles upon exposure to water or moisture. Water-reactive materials can further be classified as the following:

Class 3 - Materials which react violently with water without requiring heat or confinement.

Class 2 - Materials which may form potentially explosive mixtures with water.

Class 1 - Materials which may react with water with some release of energy, but not violently.

As per the 2009 International Fire Code 2701.5.1 Hazardous Materials Management Plan

Where required by the fire code official, each application for a permit shall include a Hazardous Materials Management Plan (HMMP).

The HMMP shall include a facility site plan designating the following:

1. Storage and use areas.
2. Maximum amount of each material stored or used in each area.
3. Range of container sizes.
4. Locations of emergency isolation and mitigation valves and devices.
5. Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines.
6. On and off positions of valves for valves that are of the self-indicating type.
7. Storage plan showing the intended storage arrangement, including the location and dimensions of aisles.
8. The location and type of emergency equipment. The plans shall be legible and drawn approximately to scale. Separate distribution systems are allowed to be shown on separate pages.

IFC 2701.5.2 Hazardous Materials Inventory Statement (HMIS).

Where required by the fire code official, an application for a permit shall include an HMIS, such as SARA (Superfund Amendments and Reauthorization Act of 1986) Title III, Tier II Report, or other approved statement.

The HMIS shall include:

1. Manufacturer's name.
2. Chemical name, trade names, hazardous ingredients.
3. Hazard classification.
4. MSDS or equivalent.
5. United Nations (UN), North America (NA) or the Chemical Abstract Service (CAS) identification number.
6. Maximum quantity stored or used on-site at one time.
7. Storage conditions related to the storage type, temperature and pressure

**Central Pierce Fire & Rescue
HAZARDOUS MATERIALS
INVENTORY
Permit Calculation Sheet**

**Liquids/
Gallons**

Range

55	1
500	2
946	3
1,836	4
4,500	5
15,180	6
65,581	7
70,000	8
75,000	9
85,000	10

**Gases/
Cubic Feet**

Range

199	1
1,999	2
3,600	3
6,800	4
16,400	5
35,600	6
54,800	7
74,000	8
80,000	9
90,000	10

**Solids/
Pounds**

Range

499	1
1,000	2
2,000	3
3,000	4
4,000	5
5,000	6
10,000	7
11,000	8
12,000	9
15,000	10

Total Range of Quantities x \$25.00 =
Annual Hazardous Material Handling,
Storage and Use Fee

Exhibit A

DOT Hazard class 1 thru 9	Common Trade Name	Chemical Name, Component, concentration	Chemical Abstract Service No.	Physical State	Maximum Quantity on Hand at any time	Units	Days on Site	Storage Code (type, Pressure, Temperature)	NFPA 704 Hazard Class	Notes:
9 with characteristics of 2 & 3	Aerovee Spray Paint	(Compound chemicals listed are not tied to specific colors but encompass properties potentially present in all colored products.) Acetone 15-40% Hydrocarbon Propellant Aliphatic Petroleum Distillates	67-64-1 68476-86-8 64742-89-8	L	14.0625	GA	365	F43	Health: 3 Flammability: 4 Instability: 0	Storage Code based on typical manufacturer arrangement.
2	Nitrogen	nitrogen gas 100%	7727-37-9	G	1500	CF	365	L43	Health: 0 Flammability: 0 Instability: 0	
9 with characteristics of 2 & 3	Zynolyte Multi-Purpose Primer	Propane 10-20% Acetone 10-20% n-Butyl Acetate 5-10% n-Butane 3-7% Aliphatic Petroleum Distillates 1-5% Isobutane 1-5%	74-98-6 67-64-1 123-86-4 106-97-8 64742-89-8 75-28-5	L	11.25	GA	365	F43	Health: 2 Flammability: 4 Instability: 0	Storage Code based on typical manufacturer arrangement.
9 with characteristics of 2 & 3	Aerovee Marking Paint	Hydrocarbon Propellant 10-30% Hexane 5-10% Aliphatic Petroleum Distillates 5-10% Aliphatic Petroleum Distillates 1-5% Aliphatic Petroleum Distillates 1-5% Non-flourescent colors also contain: Acetone 1-5% #262 Also Contains Ethanol 1-5%	68476-86-8 110-54-3 64742-89-8 647-88-7 8032-32-4 67-64-1 64-17-5	L	14.0625	GA	365	F43	Health: 2 Flammability: 4 Instability: 0	Storage Code based on typical manufacturer arrangement.
9 with characteristics of 2 & 3	Aerovee Toolmates LF Degreaser	Aliphatic Petroleum Distillates 60-100% Propylene Glycol Methyl Ether 10-30% Acetone 1-5% Carbon Dioxide 1-5%	64742-89-8 107-98-2 67-64-1 124-38-9	L	14.0625	GA	365	F43	Health: 2 Flammability: 4 Instability: 0	Storage Code based on typical manufacturer arrangement.
3	Brush/Enamel Paint	Mineral Spirits 350 Mineral Spirits 250	8032-32-4 64742-89-8	L	5	GA	365	F41	Health: 2 Flammability: 3 Instability: 0	Storage Code based on typical manufacturer arrangement.
3	Brush Primer/Carboline Gridgard	Calcium Carbonate 20% Mineral Spirits 20% MICA 15% Ethyl Benzene 5% Color Pigment 5% Xylene 5% Zinc Oxide 5% Aluminum 5%	1317-65-3 64742-88-7 12001-26-2 100-41-4 Mixture 1330-20-7 1314-13-2 7429-90-5	L	5	GA	365	F41	Health: 2 Flammability: 3 Instability: 1	Storage Code based on typical manufacturer arrangement.
9	Master Plumber Pipe Thread Compound/Cutting Oil	Lubricating Oil 35% Linseed Oil 35% Naphthenic Mineral Oil 30%	1003 8001261 1003	L	2	GA	365	F41	Health: 1 Flammability: 1 Instability: 0	Storage Code based on typical manufacturer arrangement.
9, 49 CFR 172.102 (Special Provision 130)	Batteries (AA(LR6) AAA (LR03) C(LR14) D(LR14)	Zinc 10-25% Manganese Dioxide 35-40% Nickel Compounds, Proprietary 0-6% Alkali Metal Hydroxide (aqueous potassium hydroxide) 5-10% Nickel Cobalt Plated Steel or Nickel Plated Steel 8-15% Other Non-Active Metals 10-15%	7440-66-6 1313-13-9 1310-58-3 7440-02-0	S	2	CF	365	K41	No Information Available	SDS Not provided, generic values used: assumed alkaline duracell batteries: https://www.duracell.com/en-us/techlibrary/safety-data-sheets/
3 (Combustible Liquid)	Valvoline AW32 ISO 32 /Hydraulic Oil	Hydrotreated Light Paraffinic Distillate 4.64%	64742-55-8	L	5	GA	365	F41	Health: 1 Flammability: 1 Instability: 0	Storage Code based on typical manufacturer arrangement.

3 (Combustible Liquid)	diesel fuel	diesel no. 2 85-100% Biodiesel - Fatty acid methyl esters 0-10% C9-18-alkaline branched and linear 0-5% n-Nonane 1-3% Octane 0-1% Hexane 0-1% Naphthalene 0-1 % n-Heptane 0-1% n-Hexane 0-1%	68476-34-6 67762-38-3 1159170-26-9 111-84-2 111-65-9 96-14-0 91-20-3 142-82-5 110-54-3	L	15	GA	365	F41	Health: 2 Flammability: 2 Instability: 0	SDS Not provided, generic values used: source: https://www.valero.com/sites/default/files/2019-12/sds_us_102-ghs_diesel_fuels_rev2_5-14_0.pdf & HMEX
4	Nordstrom 1033	Silica, amorphous, fumed, cryst.-free 5-10% reaction product: bisphenol-A-(epichlorhydrin) 5-10% Cellulose 1-5% 1,2-Dihydro-2,2,4-trimethylquinoline, oligomers ethanediol 0.1-1% 2,2'-iminodiethylamine 0.1-1% 2,5-bis(octylidithio)-1,3,4-thiadiazole 0.1-1% dioctyl disulphide 0.1-1% 1,4-bis(isopropylamino)anthraquinone 0-0.1% 2,2'-(benzylidenebis[2,5-dimethyl-4,1-phenylene]azo)bis[p-cresol] 0-0.1%	112945-52-5 25068-38-6 9004-34-6 26780-96-1 107-21-1 111-40-0 13539-13-4 822-27-5 14233-37-5 3321-10-6	S	5	GA	365	K41	Health: 2 Flammability: 1 Instability: 0	Storage Code based on typical manufacturer arrangement.
9	soap	Sodium poly(oxyethylene) dodecyl ether sulfate 1-5% Sodium Chloride 1-5% Glycerin 1-5% Alkylamidopropylbetaines 1-5% Sulfiric Adic, mono-c10-16-alkyl esters, sodium salts 1-5% ethanol 1-5%	68585-34-2 7647-14-5 56-81-5 61789-40-0 68585-47-7 64-17-5	L	5	GA	365	N41	Health: 2 Flammability: 0 Instability: 0	SDS Not provided, generic values used: Source: https://assets.pim.ecolab.com/media/Original/10087/US-Z8-924698-05-LIQUID%20HAND%20SOAP.pdf
9	pipe dope/talon thread sealing	Compound (SDS does not provide further information)	Not Specified	M/L	5	GA	365	F41	Health: 1 Flammability: 0 Instability: 0	Storage Code based on typical manufacturer arrangement.
9 with characteristics of 2 & 3	silicon lubricant	silicon grease 75-95% synthetic amorphous silica, fumed, crystalline free 5-25%	63148-62-9 112945-52-5	L	5	GA	365	F43	Health: 0 Flammability: 1 Instability: 0	SDS Not provided, generic values used: Source: https://multimedia.3m.com/mws/media/webserver?mwsId=SSSSSuUn_zu8100xM822o82emv70k17zHvu9lxtD75SSSS--
3 (Combustible Liquid)	Mineral Oil	white mineral oil 100%	8042-47-5	L	1181.25 (excluding large transformers)	GA	365	Not Determined	Health: 0 Flammability: 1 Instability: 0	Electrical Lab Equipment SDS not provided, values based on generic mineral oil properties. https://assets.thermofisher.com/DirectWebViewer/private/document.aspx?prd=ACR41508~PDF~MTR~AUDS~EN~2022-11-18%2014:18:52~Mineral%20oil~ Quantities include equipment/machinery to be used at the covered area or inside the electricla lab.
3 (Combustible Liquid)	Mineral Oil	white mineral oil 100%	8042-47-5	L	8200 (large transformers)	GA	365	Not Determined	Health: 0 Flammability: 1 Instability: 0	Substation Training Yard (Large Transformers) SDS not provided, values based on generic mineral oil properties. https://assets.thermofisher.com/DirectWebViewer/private/document.aspx?prd=ACR41508~PDF~MTR~AUDS~EN~2022-11-18%2014:18:52~Mineral%20oil~ Quantities are contained within (2) 115 kV transformers located in the Substation Training Yard.
3 (Combustible Liquid)	Mineral Oil	white mineral oil 100%	8042-47-5	L	1315 (excluding large transformers)	GA	365	Not Determined	Health: 0 Flammability: 1 Instability: 0	Substation Training Yard (Excluding Large Transformers) SDS not provided, values based on generic mineral oil properties. https://assets.thermofisher.com/DirectWebViewer/private/document.aspx?prd=ACR41508~PDF~MTR~AUDS~EN~2022-11-18%2014:18:52~Mineral%20oil~ Quantities include equipment/machinery in the Substation Training Yard excluding the 115 kV transformer.
9	F56 Inert Gas	sulfur hexafluoride 100%	2551-62-4	G	90	LB	365	Not Determined	Health: 3 Flammability: 0 Instability: 0	SDS not provided generic SDS utilized: https://www.airgas.com/msds/001048.pdf
2	Natural Gas	natural gas 100%	8006-14-2	G	77.45	CF	365	R43	Health: Flammability: Instability:	Natural gas quantities calculated from overall piping layout. Piping system is opened for training purposes and otherwise closed.